



PROMOTING EFFECTIVE
SPILL RESPONSE

Asian Spill Response: Recent ITOPF Experience

PAJ, 2020

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50 years

Promoting effective
spill response



Established in 1968 by tanker
owners to administer a voluntary
oil spill compensation scheme

The world's largest shipowner organisation,
providing objective advice on effective
response to spills of oil, chemicals and
other substances in the marine environment.

Not-for-profit

Key Services

Developed
the technical
services
function
in 1971



Operates
internationally
from London



Spill
Response



Claims Analysis
& Damage
Assessment



Information
Services



Contingency
Planning
& Advice



Training &
Education

Supports
over 90%
of all ocean
going tonnage



Library
with over
15,000 items
on marine
pollution and
related topics

7,900 Members owning
or operating 13,600
tankers, barges, LPG/
LNG carriers, FPSO/FSUs
or combination carriers
totalling 429 million GT

Associates, the owners
of all other types of ships,
totalling

810

million GT

International
Board of Directors
comprising key
names in shipping
and P&I insurance

Observer status at
IMO and IOPC Funds



> 800 incidents in 100 countries

34 Staff including
15 responders

34¹⁵

Marine
biologists,
chemists,
environmental
scientists,
engineers,
geologists



Fluent in
English, French,
German, Italian,
Mandarin,
Portuguese, Spanish



Attends
on average
20
cases
per year



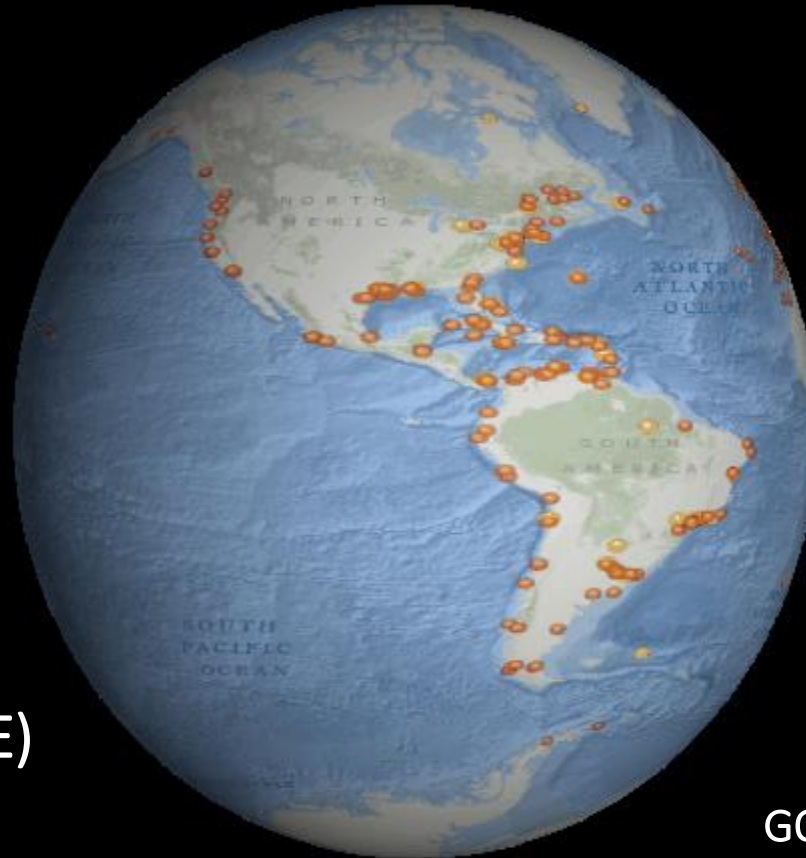
Highly skilled
international team
ready to assist
24 hours a day,
365 days a year

£50k

Awards up to
£50,000 each
year for R&D
activities

Attendance at
815 spills in
100 countries

Provide advice
remotely for spills



1st INCIDENT (TECHNICAL ADVICE)

NAME: SAIJA (TANKER)
DATE: 17/06/1972
COUNTRY: FRANCE
CAUSE: GROUNDING
POLLUTANT: CRUDE

MOST RECENT INCIDENTS

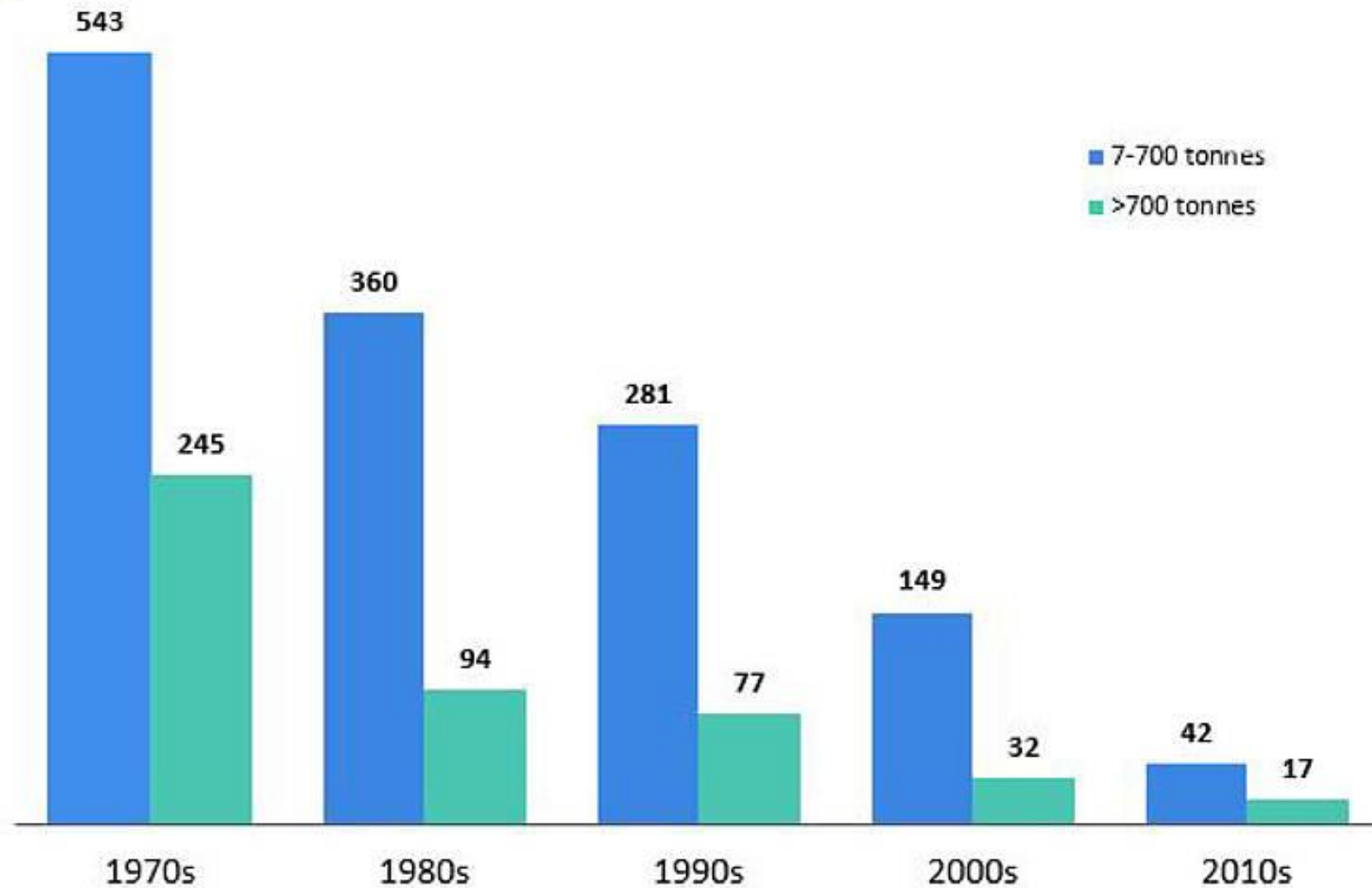
GOLDEN RAY	(USA)
MYSTERY SPILL	(BRAZIL)
DRAGON 2 & GOLDEN BRIDGE	(THAILAND)
NUR ALLYA	(INDONESIA)

Marine shipping spill response in the last 10 years....

ITOPF's experience?

Increased **effectiveness**
of spill response?

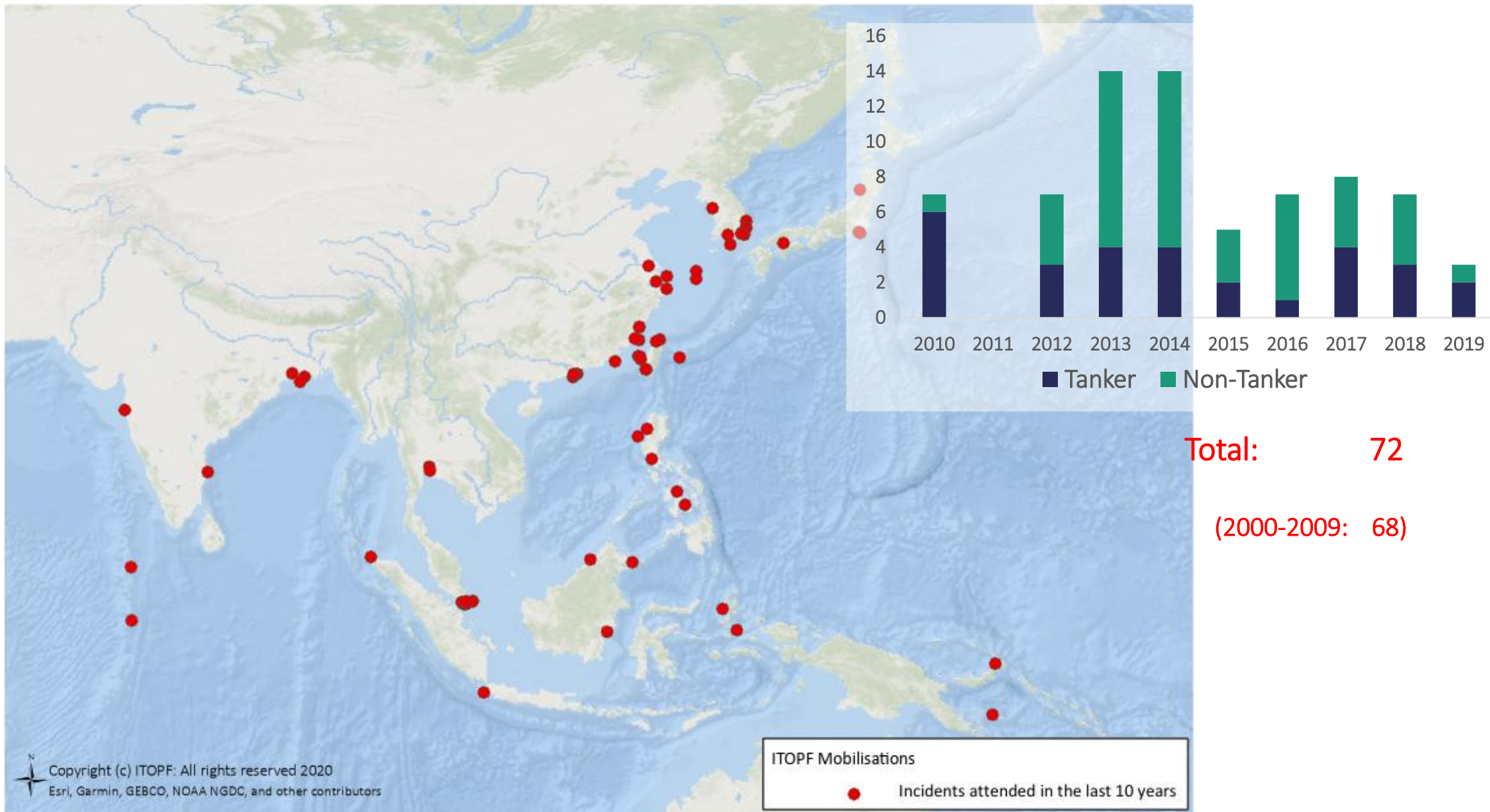
ITOPF tanker spill statistics show downward trend



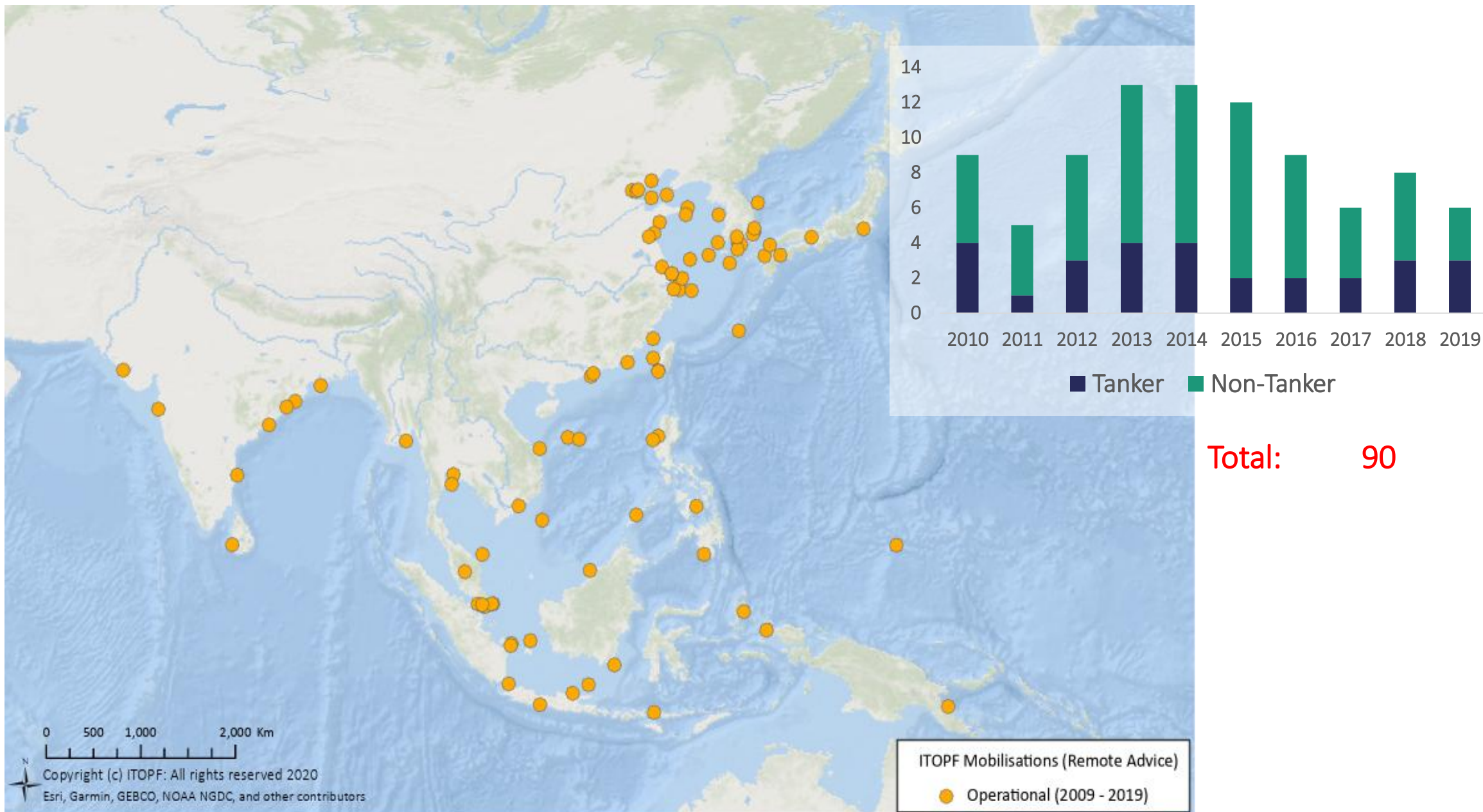
2019 was the lowest recorded year of tanker spills

Number of **medium** (7-700 tonnes) and **large** (>700 tonnes) spills per decade from **1970** to **2018**

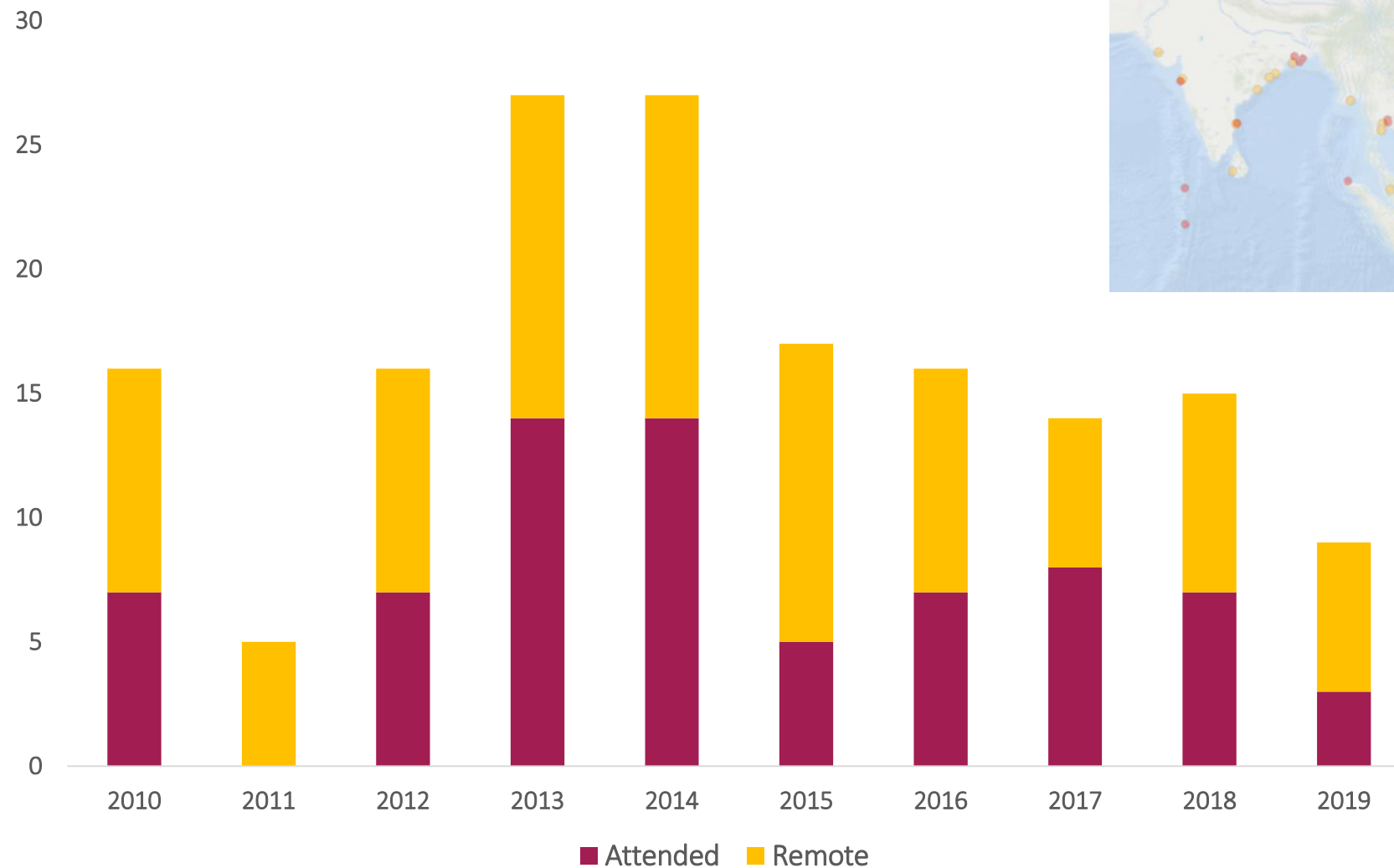
ITOPF Spills Attended in Asia (2010 – 2019)



ITOPF Spills Remote Advice in Asia (2010 – 2019)

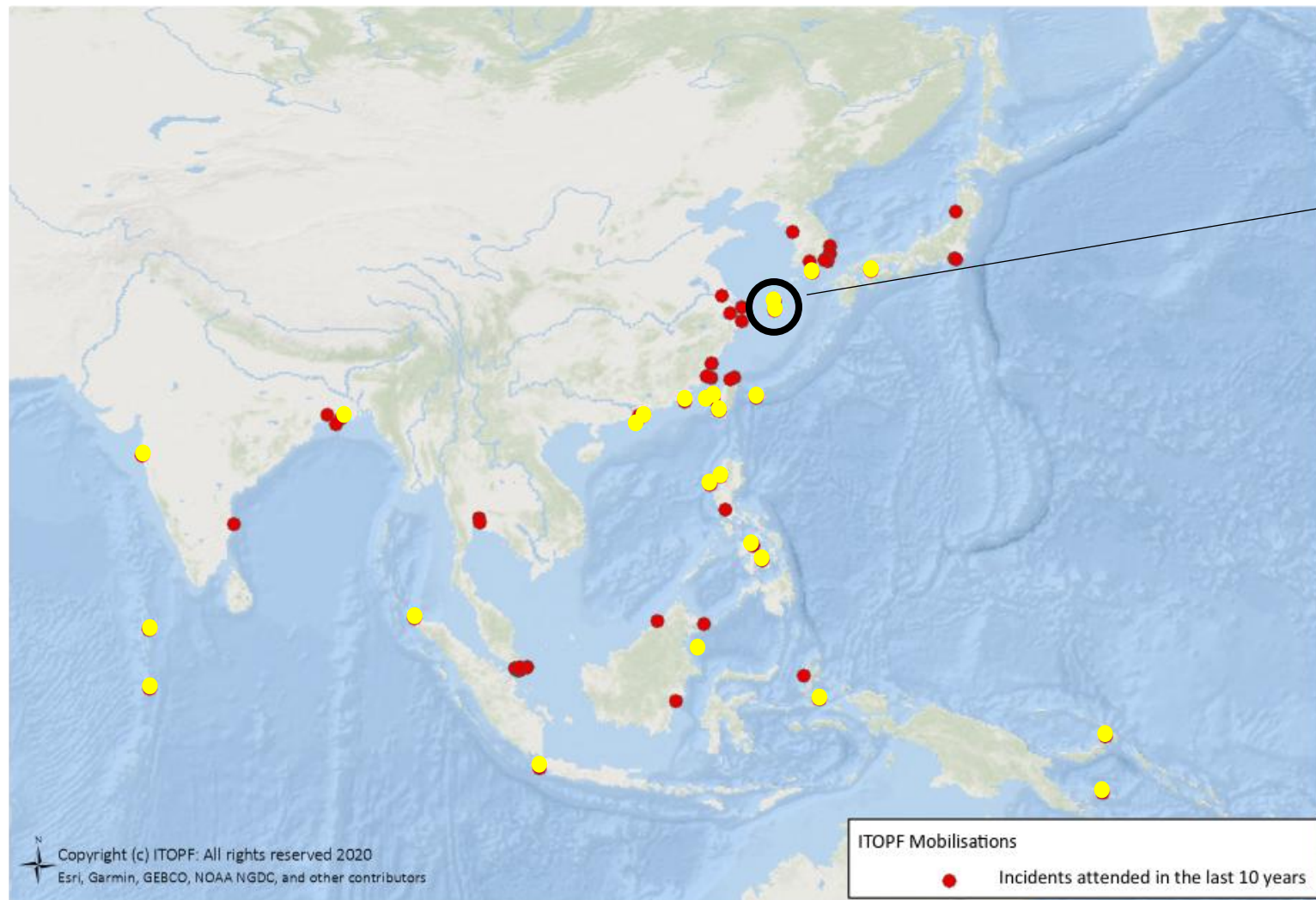


ITOPF Spills – Total Asian Cases (2010 – 2019)

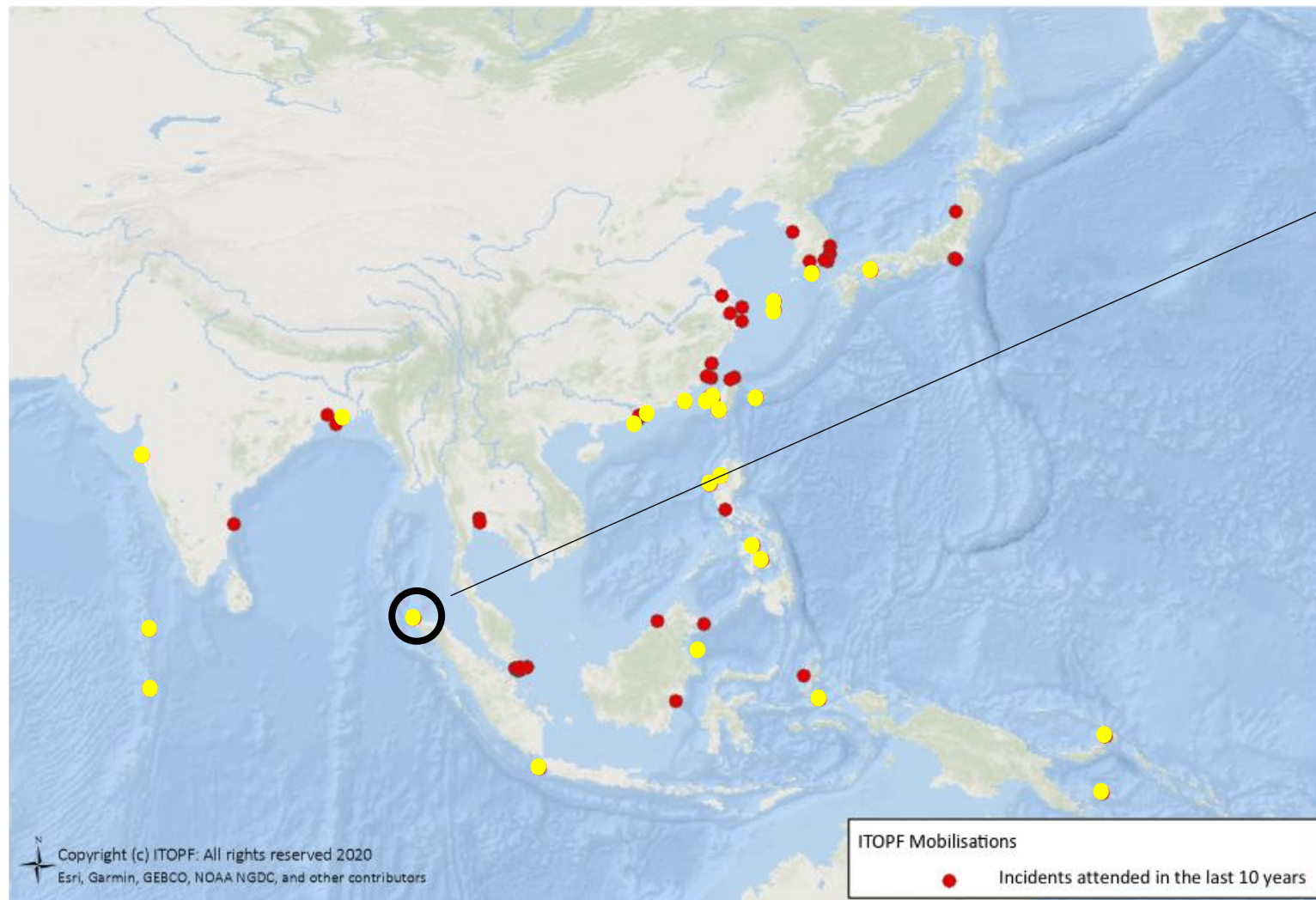


Total: 162

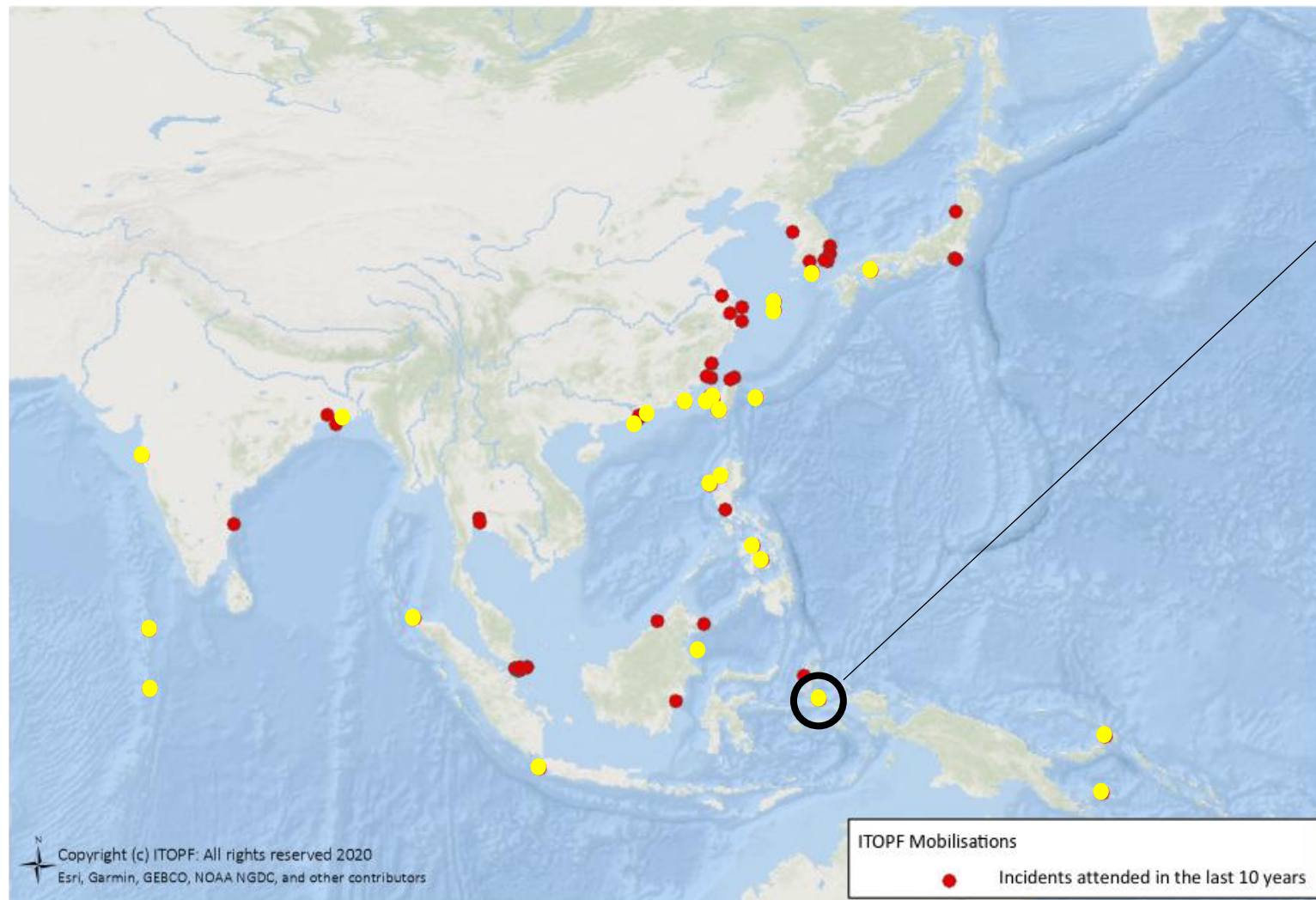
ITOPF Spills – ‘Remote’ incidents (2010 – 2019)



ITOPF Spills – ‘Remote’ incidents (2010 – 2019)



ITOPF Spills – ‘Remote’ incidents (2010 – 2019)



Has spill response efficiency changed in Asia over the last decade?

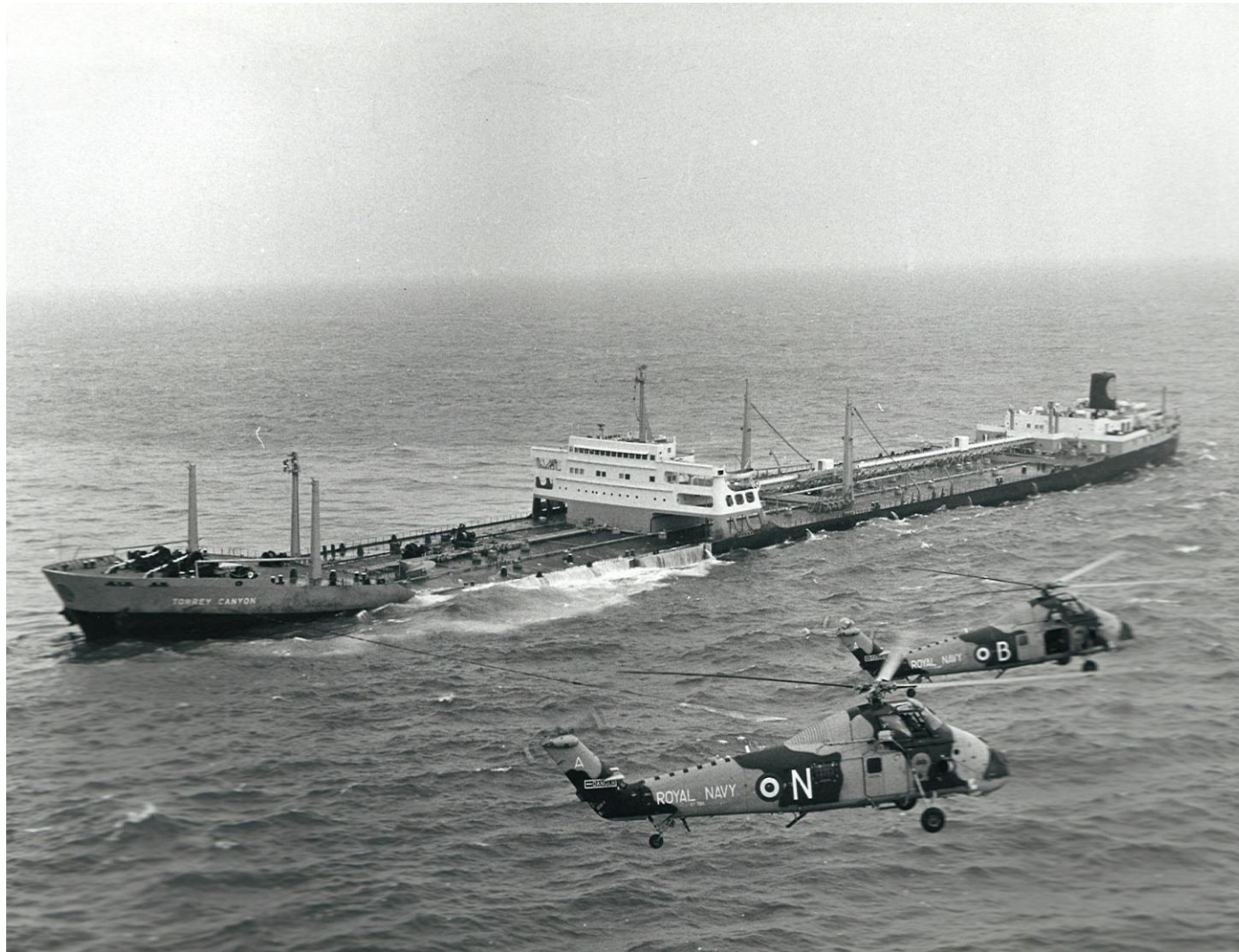
How has technology
helped?

Where must we remain
vigilant?

- To what extent has technology **improved** our ability to quickly and efficiently respond to spills?



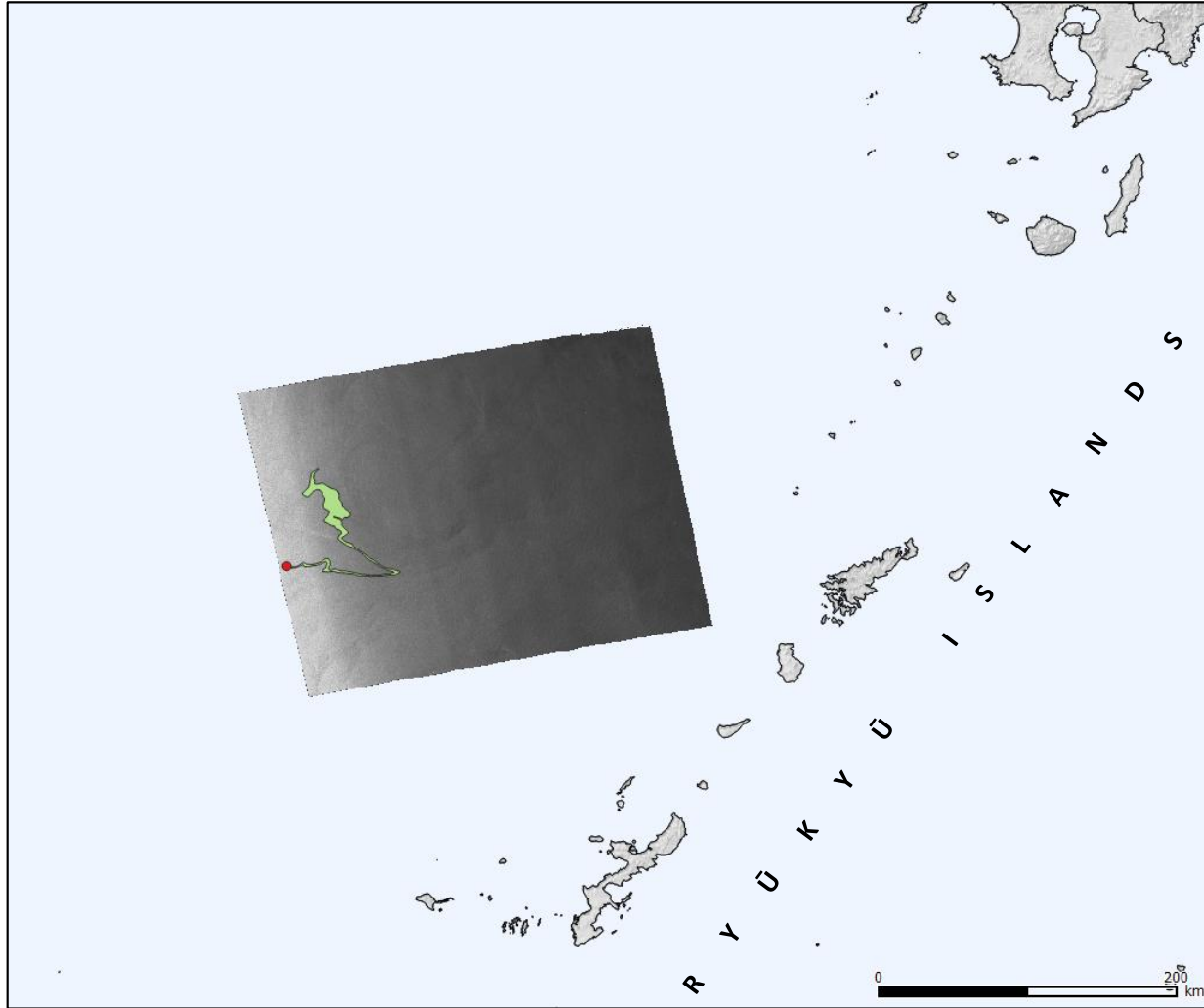
Aerial Surveillance



Satellite Imagery



Satellite Imagery – to mapping

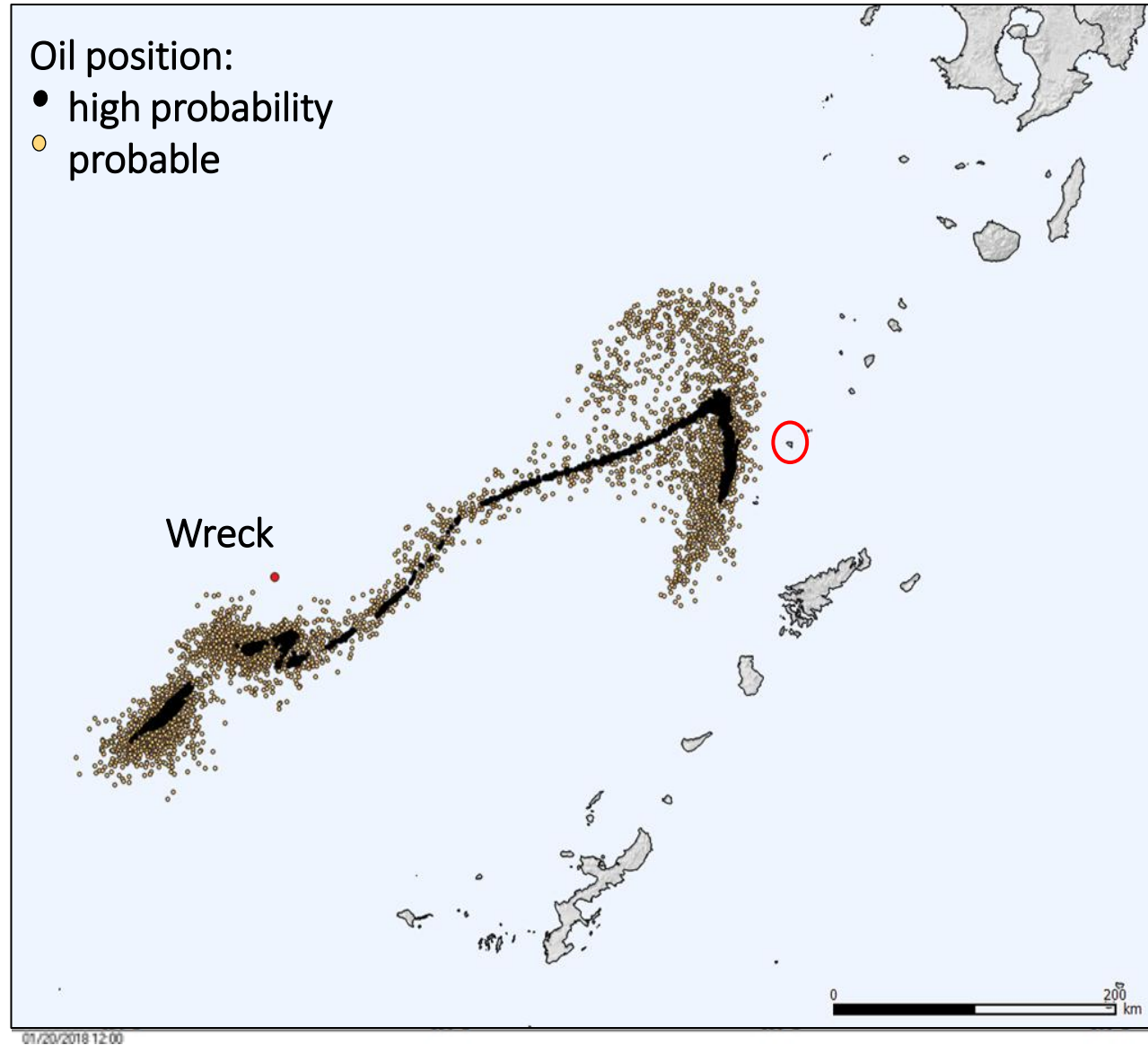


COSMO-SkyMed

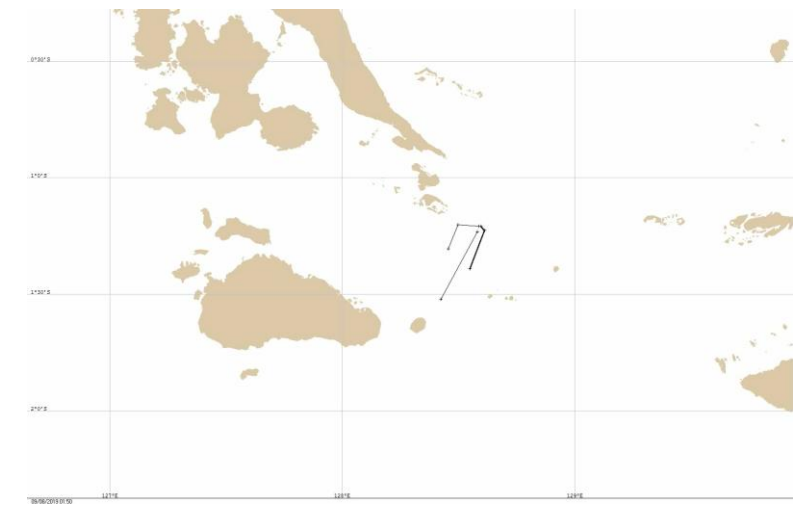
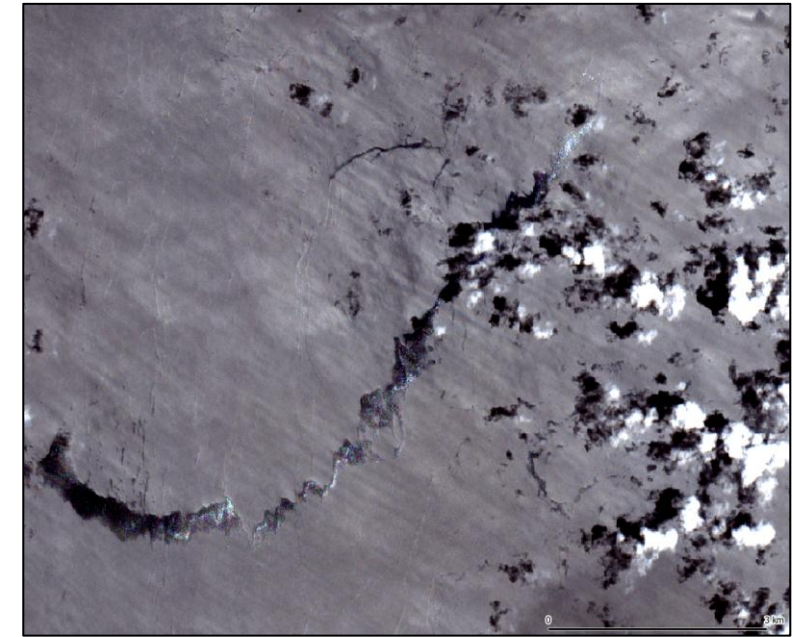
SAR (Synthetic Aperture Radar)

2018-01-17 21:11

Satellite Imagery – to mapping – to modelling



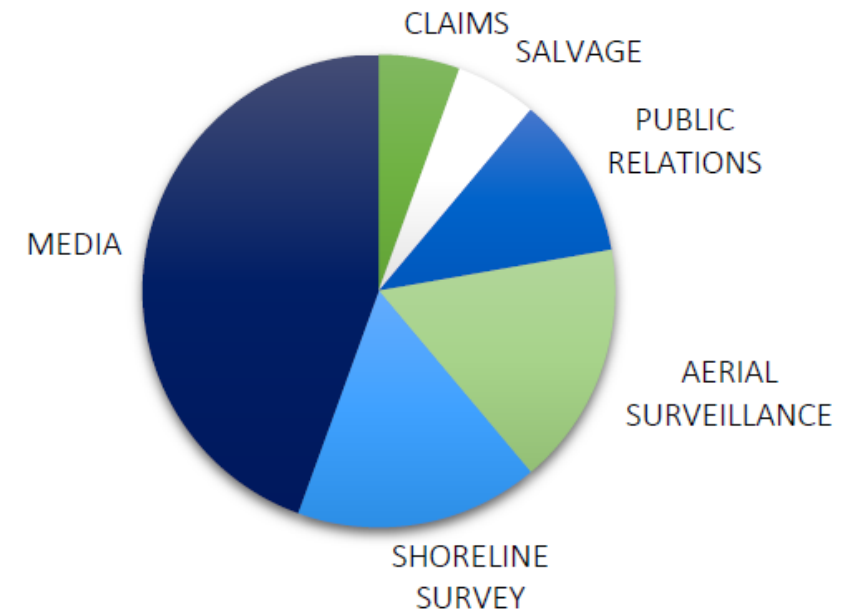
Satellite Imagery – to mapping – to modelling



Aerial Surveillance - UAVs

From 2014-2017, UAVs were observed in use at **11 of the 55** incidents attended by ITOPF (20%). This is only likely to increase.

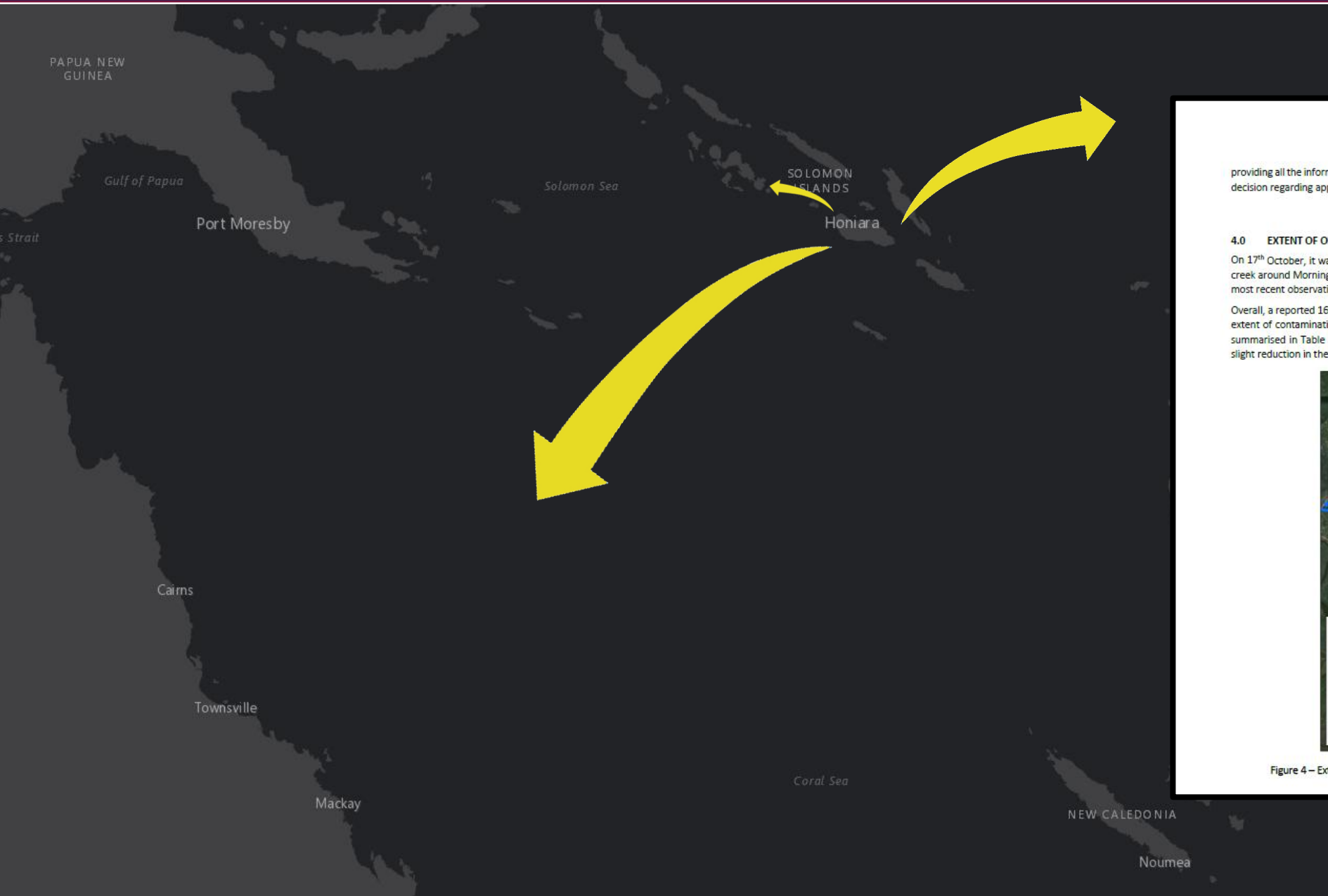
UAVs have been used effectively in a number of incidents attended by ITOPF. Their use has **complemented rather than replaced** traditional forms of surveillance. In some scenarios, more traditional forms of surveillance remain preferable/more feasible.



- To what extent has technology **improved** our ability to quickly and efficiently respond to spills?



Communication



providing all the information in lay terms, enable the stakeholders with a method of making an informed decision regarding approval of the proposed way forward.

4.0 EXTENT OF OIL CONTAMINATION

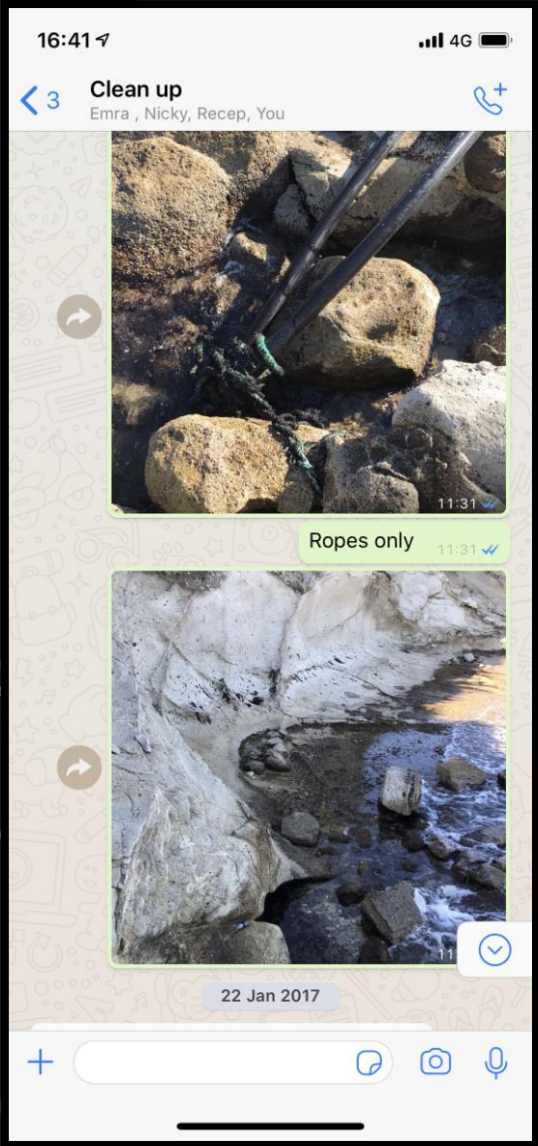
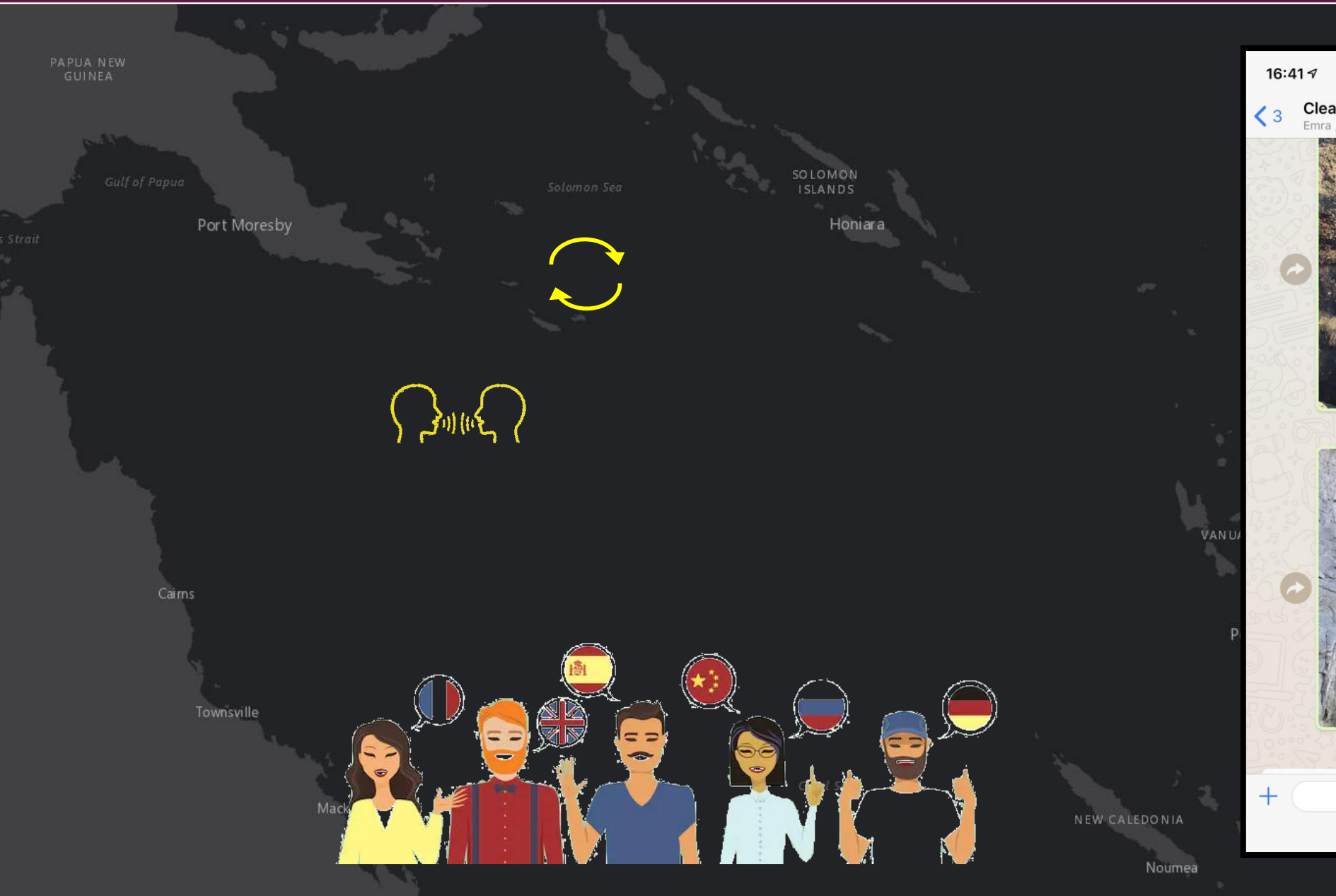
On 17th October, it was reported that three SCAT teams intended to survey the northern areas of the creek around Morningstar Marina which haven't been surveyed using SCAT since 30th September. The most recent observations made during these SCAT surveys are illustrated in Figure 4.

Overall, a reported 161.2 km of shoreline has been cumulatively surveyed by SCAT Teams. The current extent of contamination by category (e.g. heavy, moderate and light), as reported by SCAT Teams, is summarised in Table 1, along with the maximum extent reported for comparison. There has been a slight reduction in the length of moderately oiled shoreline in comparison with 15th October (0.5 km).



Figure 4 – Extent of contamination observed as of 17th October during SCAT Surveys.

Communication



SOLOMON TRADER



SOLOMON TRADER: Circumstances of the Incident

Kagava Bay, Rennell Island, Solomon Islands

- Bulk Carrier (38,779 GT, 1994, Hong Kong flag)
- Cargo: 10,850 MT bauxite ore
- Hydrocarbons:
 - 748.7 m³ IFO 380
 - 29.45 m³ DO
 - 29.39 m³ LO

Key Milestones

- | | |
|--------------------------|-----------------------|
| • Ship aground | Feb 5 th |
| • First oil on the water | Feb 15 th |
| • Resolve mobilised | Feb 18 th |
| • ITOPF onsite | Feb 28 th |
| • Refloat | May 11 th |
| • Change contractors | May 26 th |
| • Vessel towed | June 18 th |
| • Clean-up completed | July 26 th |

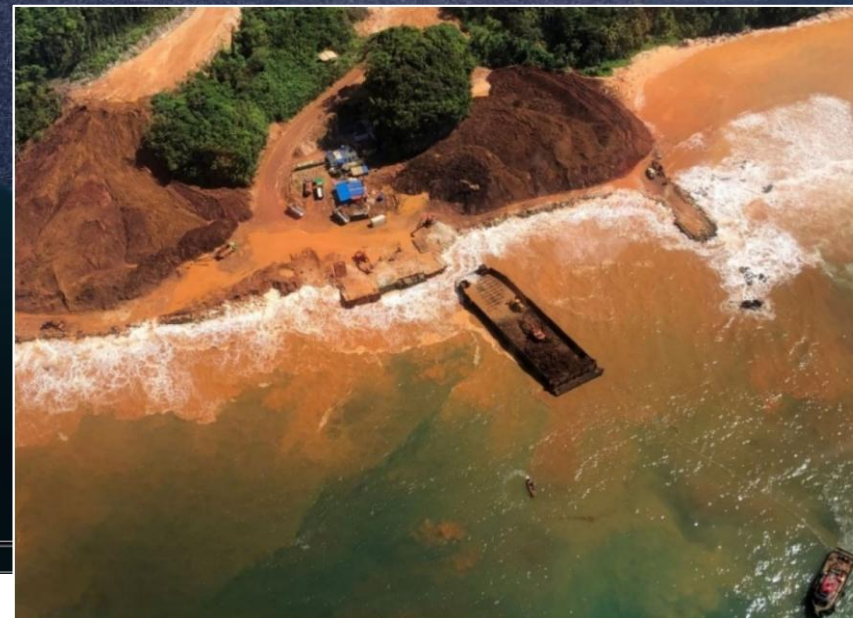
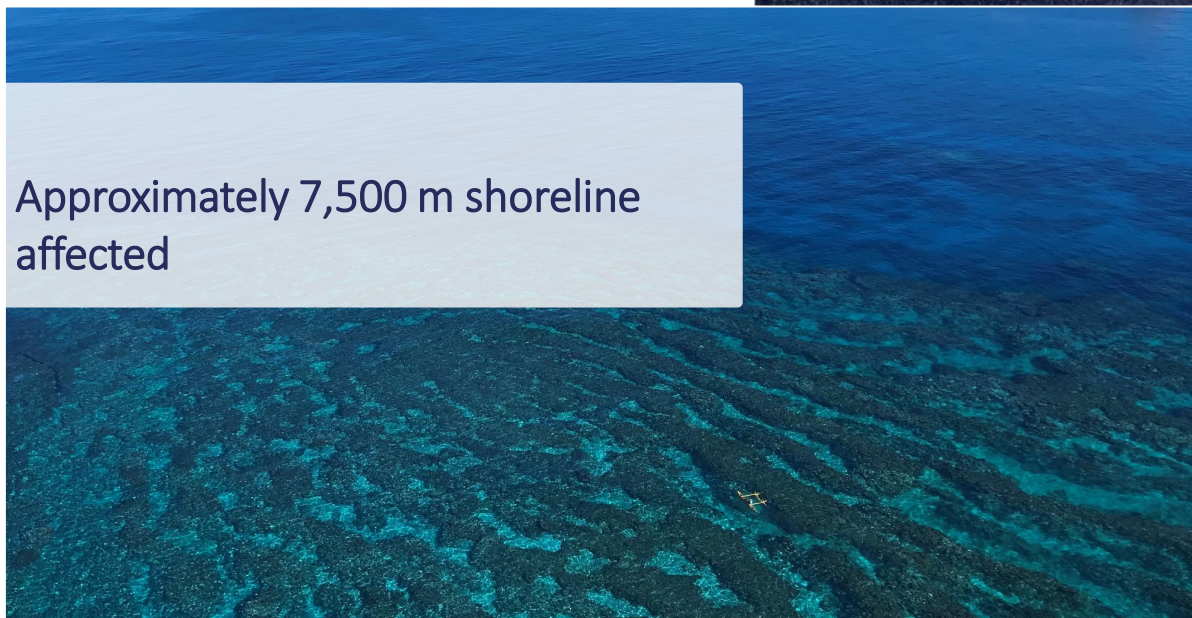


SOLOMON TRADER: Circumstances of the Incident

- Bordering UNESCO World Heritage Site
- The bay has two local populations
- Mining and logging operations



- Approximately 7,500 m shoreline affected



SOLOMON TRADER: Circumstances of the Incident



SOLOMON TRADER: Challenges

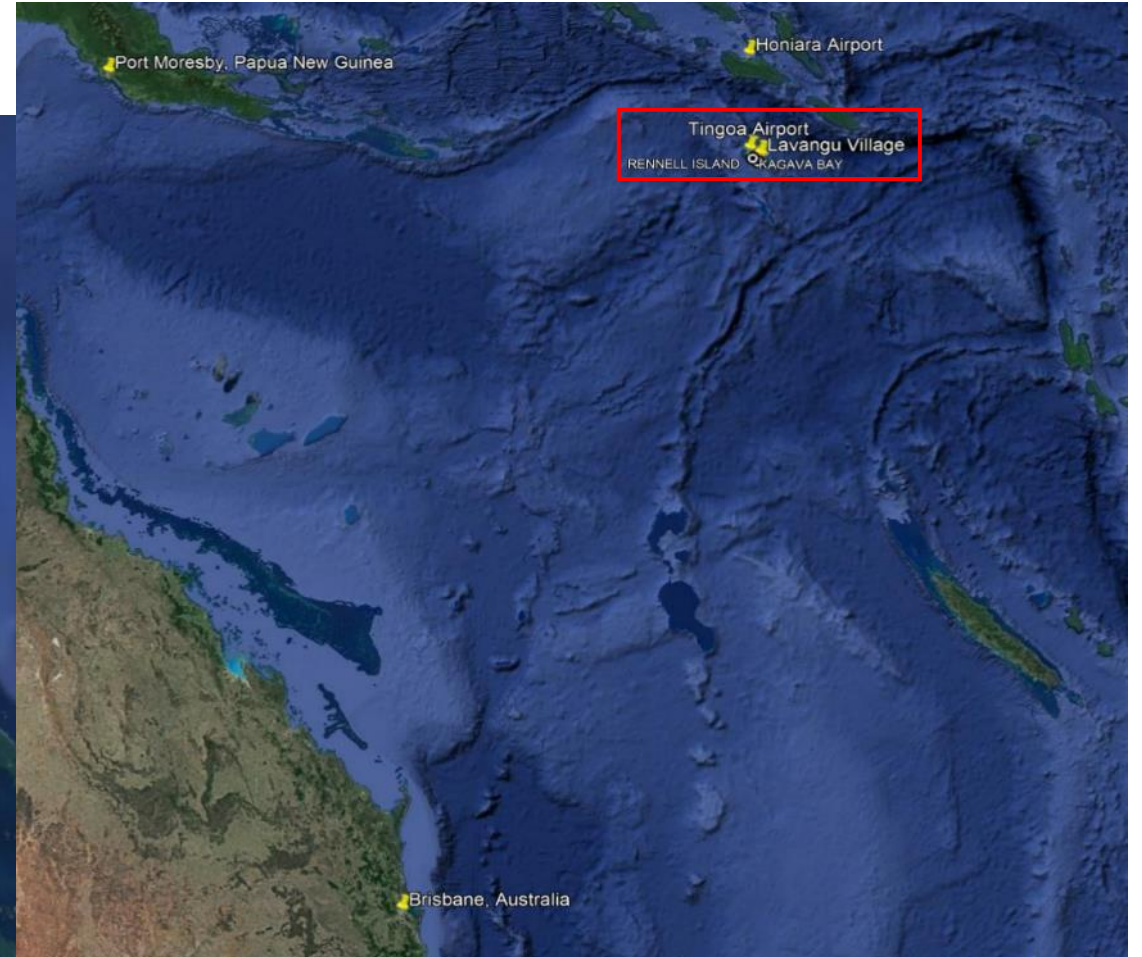
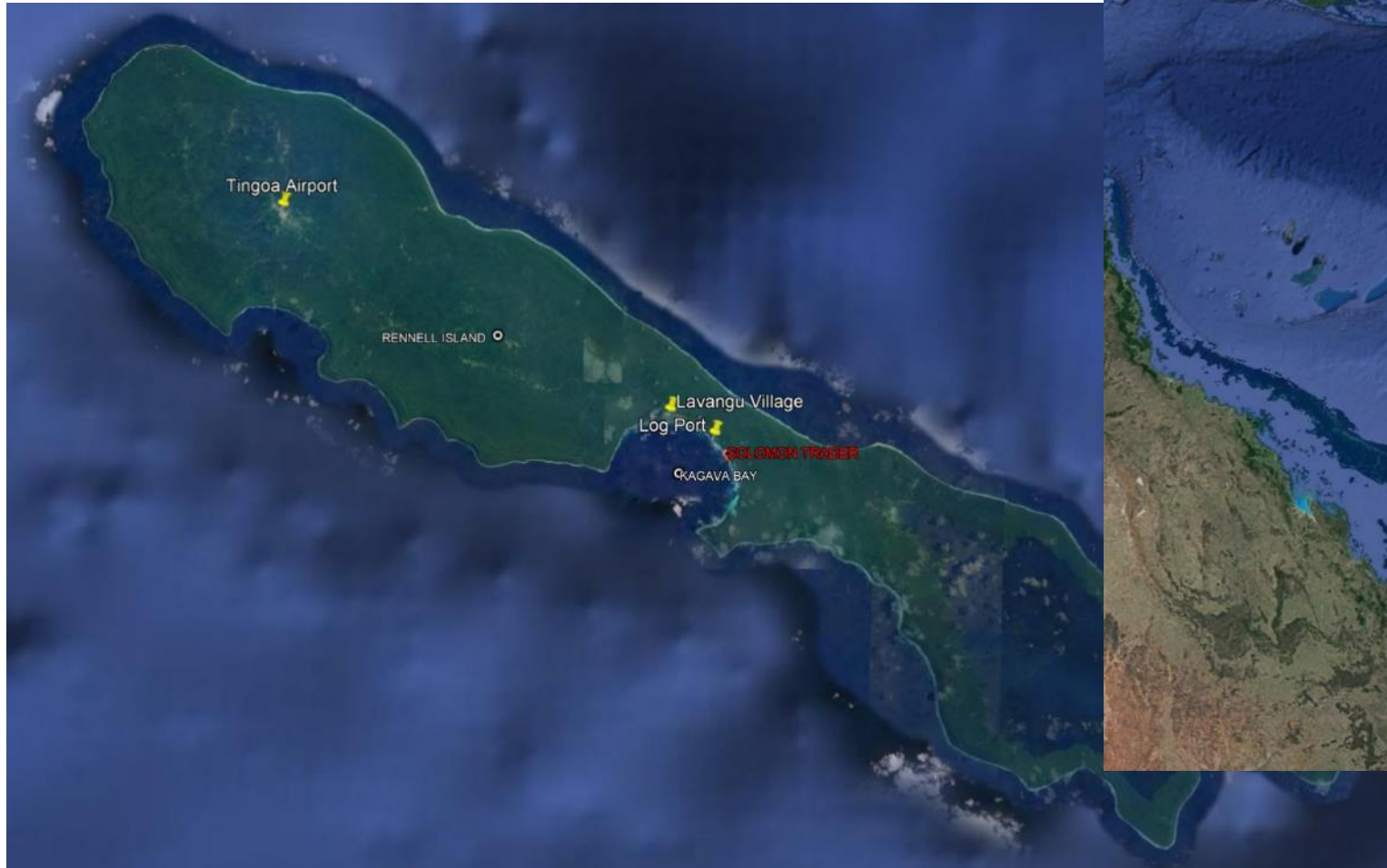
1. SIGNIFICANT 'FIRSTS'

- Solomon Islands:
1st significant oil spill
- PACPLAN
1st Solomon Island case
- Korea P&I:
1st international spill
- Resolve:
1st international spill response
- KOMOS:
1st as club representative
- ITOPF:
1st Solomon Islands case



SOLOMON TRADER: Challenges

2. DEGREE OF REMOTENESS



SOLOMON TRADER: Challenges

2. DEGREE OF REMOTENESS

Communication



SOLOMON TRADER: Challenges

2. DEGREE OF REMOTENESS



LOGISTICS

- International contractors required due to a lack of national capacity
- International supply chain required due to limited national capacity
- Mobilising equipment
 - Lack of infrastructure
 - Freight issues - HPW are 'DG'
- Average time to mobilise equipment to site; 3-4 weeks

SOLOMON TRADER: Challenges

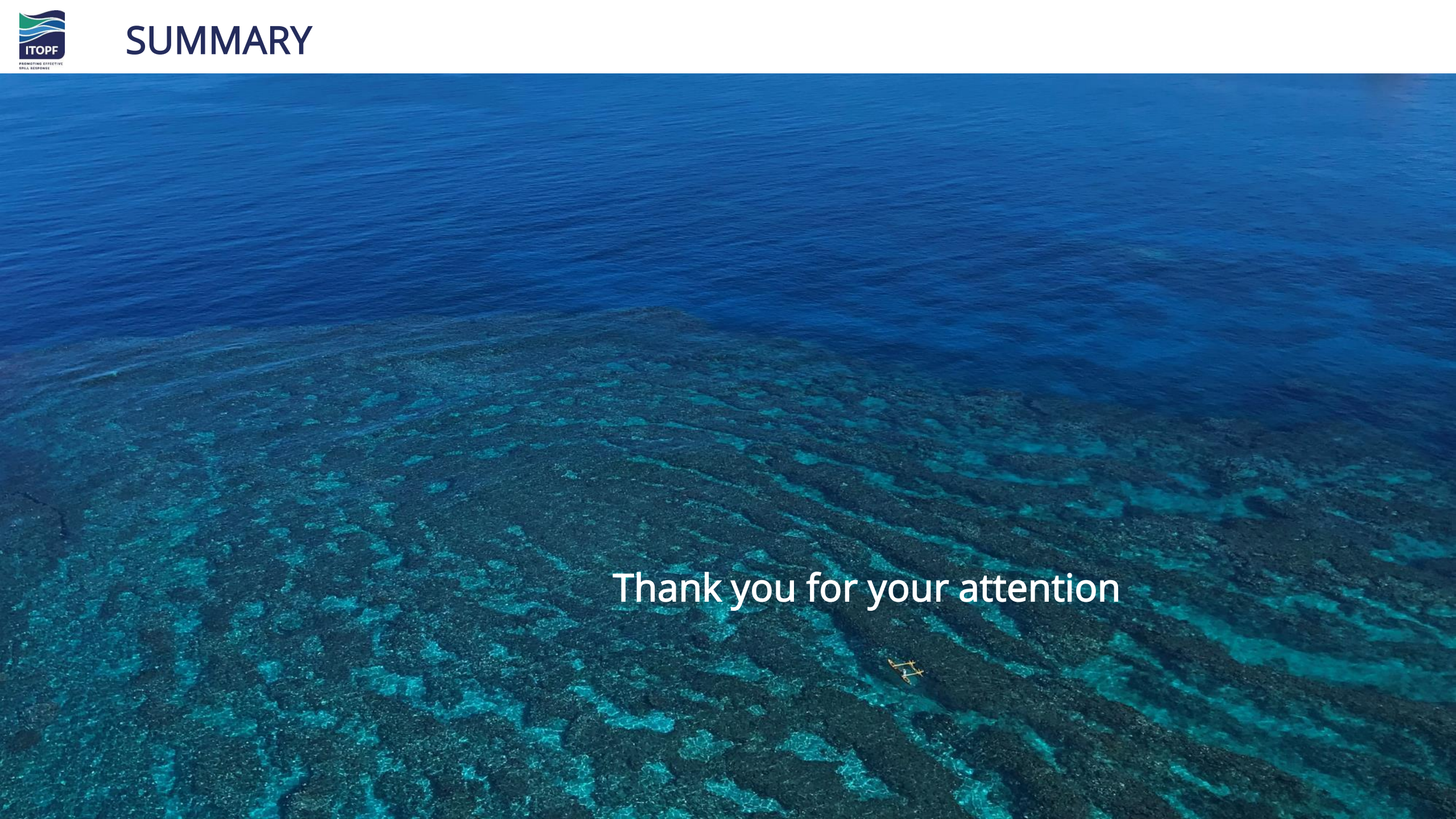
2. DEGREE OF REMOTENESS



WASTE

- No national facility for hazardous waste treatment or disposal
- No regional facilities listed under SPREP (Secretariat of the Pacific Regional Environment Programme).
- 637 Supersacks (~250 MT) hazardous waste to remove

- Globally, marine pollution incidents continue to decline
- Accidents remain and it is demonstrated that remote, unprepared areas are frequently affected
- Technology developments have increased our ability to observe remote incidents in almost real-time and to operate more easily within those spaces
- Communication issues remain and we must continue to exercise

An aerial photograph of a vast coral reef system. The water is a deep blue, transitioning to a lighter turquoise as it meets the reef. The reef itself is a complex, textured landscape of dark and light patches. A small, yellow boat is visible on the right side of the reef.

Thank you for your attention